
INTERNATIONAL STANDARD



1797

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Dental burs and cutters – Fitting dimensions

Fraises et instruments de coupe utilisés en art dentaire – Dimensions d'ajustement

First edition – 1976-03-01

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 1797:1976

<https://standards.iteh.ai/catalog/standards/sist/14f63fb7-d9e0-4860-8502-273f76ae3264/iso-1797-1976>

UDC 616.314 – 7

Ref. No. ISO 1797-1976 (E)

Descriptors : dental equipment, dental burs, cutters, dimensions, diameters.

Price based on 2 pages

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 106 has reviewed ISO Recommendation R 1797 and found it technically suitable for transformation. International Standard ISO 1797 therefore replaces ISO Recommendation R 1797-1970 to which it is technically identical.

ISO Recommendation R 1797 was approved by the Member Bodies of the following countries :

Australia	Greece	Spain
Brazil	India	Sweden
Canada	Israel	Switzerland
Czechoslovakia	Korea, Dem. P. Rep. of	United Kingdom
Egypt, Arab Rep. of	New Zealand	U.S.A.
France	Peru	Yugoslavia
Germany	South Africa, Rep. of	

The Member Body of the following country expressed disapproval of the Recommendation on technical grounds :

Netherlands

No Member Body disapproved the transformation of ISO/R 1797 into an International Standard.

Dental burs and cutters – Fitting dimensions

1 SCOPE AND FIELD OF APPLICATION

This International Standard lays down the fitting dimensions of burs and cutters used in dentistry. It also includes the description of methods of measurement for the verification of the fixed dimensions. A quality control requirement is included in order to ensure a high quality level.

2 CLASSIFICATION

Burs and cutters covered by this International Standard shall be classified into types, as follows, according to their shank design :

- Type 1** – with shank designed for use in angle handpieces;
- Type 2** – with shank designed for use in straight handpieces;
- Type 3** – with shank designed for use in friction grip handpieces.

3 FITTING DIMENSIONS AND TOLERANCES

The fitting dimensions and their tolerances shall be as shown on the figure.

4 METHODS OF MEASUREMENT

4.1 Shank diameters

Inspection shall be made with tungsten carbide ring gauges checked regularly with mating plugs, with air gauges or with dial indicators (1/1 000 mm dial graduations).

4.2 Other dimensions

Inspection shall be made with appropriate gauges with tungsten carbide faces, with tungsten carbide-faced micrometer calipers, with toolmakers' microscopes or with dial indicators.

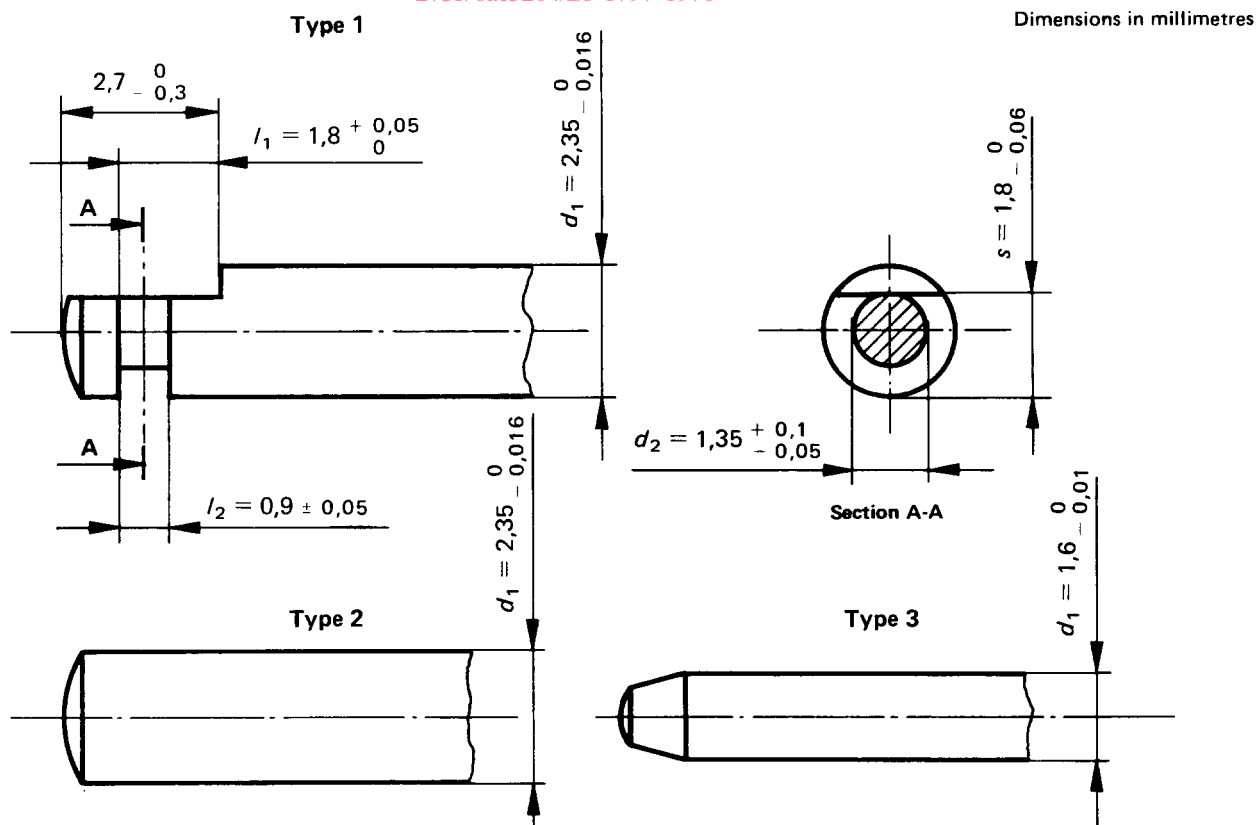


FIGURE – Fitting dimensions and tolerances

5 QUALITY CONTROL

5.1 Types of burs and cutters

For the purpose of quality control burs and cutters shall be considered using the type classification detailed in clause 2.

5.2 Defects

Major defects : Major defects shall include only those items which will prevent a bur from operating.

Minor defects : Minor defects shall be all other deviations from specifications which will tend to lower the quality of the product.

Table 1 lists those deviations from specification that shall be considered as major defects.

All deviations in fitting dimensions which have not been listed in table 1 as major defects shall be considered as minor defects.

5.3 Sampling

The method of taking samples and the number of burs needed for testing shall be the subject of agreement between the parties concerned.

5.4 Acceptable quality level (AQL)

The acceptable quality level, expressed as the maximum acceptable number of defects per hundred pieces, for each type of bur and cutter, is shown in table 2.

TABLE 1 – Major defects

Dimensions in millimetres

Shank*	Diameter of shank d_1	Diameter of groove d_2	Shoulder to groove measurement r_1	Width of groove f_2	D-flat dimension s
Type 1	> 2,35	> 1,45	< 1,80	< 0,85	> 1,80
Type 2	> 2,35	—	—	—	—
Type 3	> 1,60 < 1,59	—	—	—	—

* See clause 2 and figure.

TABLE 2 – Acceptable quality level

Shank*	Major defects	Minor defects
	% max.	% max.
Type 1	2,5	6,5
Type 2	2,5	6,5
Type 3	1,5	4,0

* See clause 2.